## **ABSTRACT**

## SOLUBLE MAST CELL FUNCTION ASSOCIATED ANTIGEN (MAFA) PHARMACEUTICAL COMPOSITIONS AND METHODS OF MAKING AND USING THEM

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This invention provides pharmaceutical compositions and methods for controlling and modifying Natural Killer (NK) cell and T cell functions by manipulation of "mast cell function-associated antigen," or "MAFA," polypeptide-mediated cell signaling. The invention provides a pharmaceutical compositions and methods using an agent that specifically binds to an MAFA ligand on a target cell and prevents or inhibits NK- or T cell-expressed cell surface MAFA from binding to the MAFA ligand on the target cell. Preventing or inhibiting an NK- or a T cell-expressed cell surface MAFA from binding to the MAFA ligand on the target cell prevents or inhibits the cell surface MAFA from generating an inhibitory signal to the NK or the T cell. The invention also provides pharmaceutical compositions and methods using an agent that specifically binds to an NK- or a T cell-expressed cell surface MAFA from binding to a MAFA ligand or generating an inhibitory signal to the NK or the T cell. The invention also provides pharmaceutical compositions and methods using an agent that specifically binds to an NK- or a T cell-expressed cell surface MAFA from binding to a MAFA ligand or generating an inhibitory signal to the NK or the T cell. The invention also provides pharmaceutical compositions and methods using an agent that specifically binds to an NK- or a T cell-expressed cell surface MAFA and inhibits an NK cell or T cell activity.